



(1) GENERAL INFORMATION

(i) APPLICANT: Simons, Michael  
Gao, Yihua

(iii) TITLE OF INVENTION: Method for PR-39 peptide regulated stimulation of angiogenesis

(iii) NUMBER OF SEQUENCES: 14

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: David Prashker, Esq.

(B) STREET: P.O. Box 5387

(C) CITY: Magnolia

(D) STATE: Massachusetts

(E) COUNTRY: USA

(F) ZIP: 01930

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Diskette, 3.50 inch, 1.40 Mb storage

(B) COMPUTER: IBM PS/1

(C) OPERATING SYSTEM: MS DOS

(D) SOFTWARE: WordPerfect version 5.1

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 09/276,868

(B) FILING DATE: March 26, 1999

(C) CLASSIFICATION: Unknown

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: David Prashker, Esq.

(B) REGISTRATION NUMBER: 29,693

(C) REFERENCE/DOCKET NUMBER: BIS-043

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (978) 525-3794

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(iii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro  
5 10 15  
1 Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
20 25 30  
Arg Phe Pro Pro Arg Phe Pro  
35

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(iii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro  
5 10 15  
1 Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
20 25 30  
Arg Phe Pro Pro Arg Phe Pro  
35

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:4:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg  
1 5 10

(2) INFORMATION FOR SEQ ID NO:5:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 8 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Arg Arg Arg Pro Arg Pro Pro Tyr  
1 5

(2) INFORMATION FOR SEQ ID NO:6:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 39 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro  
1 5 10 15  
Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro  
20 25 30

Arg Phe Pro Pro Arg Phe Pro  
35

(2) INFORMATION FOR SEQ ID NO:7:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 11 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear  
(ii) MOLECULE TYPE: peptide  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg  
1 5 10

(2) INFORMATION FOR SEQ ID NO:8:  
(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 255 amino acids  
(B) TYPE: amino acid

(C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

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Met Ser Ser Ile Gly Thr Gly Tyr Asp Leu Ser Ala Ser Thr Phe Ser
1          5          10          15
Pro Asp Gly Arg Val Phe Gln Val Glu Tyr Ala Met Lys Ala Val Glu
20         25          30
Asn Ser Ser Thr Ala Ile Gly Ile Arg Cys Lys Asp Gly Val Val Phe
35         40          45
Gly Val Glu Lys Leu Val Leu Ser Lys Leu Tyr Glu Glu Gly Ser Asn
50         55          60
Lys Arg Leu Phe Asn Val Asp Arg His Val Gly Met Ala Val Ala Gly
65         70          75          80
Leu Leu Ala Asp Ala Arg Ser Leu Ala Asp Ile Ala Arg Glu Glu Ala
85         90          95
Ser Asn Phe Arg Ser Asn Phe Gly Tyr Asn Ile Pro Leu Lys His Leu
100        105         110
Ala Asp Arg Val Ala Met Tyr Val His Ala Tyr Thr Leu Tyr Ser Ala
115        120         125
Val Arg Pro Phe Gly Cys Ser Phe Met Leu Gly Ser Tyr Ser Ala Asn
130        135         140
Asp Gly Ala Gln Leu Tyr Met Ile Asp Met Ser Gly Val Ser Tyr Gly
145        150         155         160
Tyr Trp Gly Cys Ala Ile Gly Lys Ala Arg Gln Ala Ala Lys Thr Glu
165        170         175
Ile Glu Lys Leu Gln Met Lys Glu Met Thr Cys Arg Asp Val Val Lys
180        185         190
Glu Val Ala Lys Ile Ile Tyr Ile Val His Asp Glu Val Lys Asp Lys
195        200         205
Ala Phe Glu Leu Glu Leu Ser Trp Val Gly Glu Leu Thr Lys Gly Arg
210        215         220
His Glu Ile Val Pro Lys Asp Ile Arg Glu Glu Ala Glu Lys Tyr Ala
225        230         235         240
Lys Glu Ser Leu Lys Glu Glu Asp Glu Ser Asp Asp Asp Asn Met
245        250         255
  
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(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 4 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Ala Glu Arg Asp  
1

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 1 amino acid  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear  
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Ala  
1

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 24 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single

(D) TOPOLOGY: linear  
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Lys Lys His Glu Glu Glu Ala Lys Ala Glu Arg Glu Lys Lys Glu  
1 5 10 15  
Lys Glu Gln Lys Glu Lys Asp Lys  
20

(2) INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 16 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

Glu Lys Glu Lys Glu Glu Asn Glu Lys Lys Gln Lys Lys Ala Ser  
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 27 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

Glu Glu Arg Pro Gln Arg Lys Ala Gln Pro Ala Gln Pro Ala Asp Glu  
1 5 10 15  
Pro Ala Glu Lys Ala Asp Glu Pro Met Glu His  
20 25

(2) INFORMATION FOR SEQ ID NO:14:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 16 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

Ala Lys Glu Ser Leu Lys Glu Glu Asp Glu Ser Asp Asp Asp Asn Met  
1 5 10 15